

>> Semiconductor Home > Products > Analog & Mixed-Signal > Amplifiers > Operational Amplifiers >

TL074, QUAD LOW-NOISE JFET-INPUT GENERAL-PURPOSE OPERATIONAL AMPLIFIER Device Status: Active

- > Description
- > Features
- > Datasheets
- > Pricing/Samples/Availability
- > Application Notes
- > User Manuals
- > Development Tools
- > Applications

Parameter Name	TL074
delta VCC (max) (V)	36
delta VCC (min) (V)	7
IDD / ICC per channel (max) (mA)	2.5
IDD / ICC per channel (typ) (mA)	1.4
GBW (typ) (MHz)	3
Slew Rate (typ) (V/us)	13
VIO (Full Range) (max) (mV)	13
VIO (25 deg C) (max) (mV)	10
IIB (typ) (pA)	65
CMRR (typ) (dB)	100
Vn (typ) (nV/rtHz)	18
Number of Channels	4
Spec'd at VCC (V)	+/-15

Description

The JFET-input operational amplifiers in the TL07_ series are designed as low-noise versions of the TL08_ series amplifiers with low input bias and offset currents and fast slew rate. The low harmonic distortion and low noise make the TL07_ series ideally suited for high-fidelity and audio preamplifier applications. Each amplifier features JFET inputs (for high input impedance) coupled with bipolar output stages integrated on a single monolithic chip.

The C-suffix devices are characterized for operation from 0°C to 70°C. The I-suffix devices are characterized for operation from -40°C to 85°C. The M-suffix devices are characterized for operation over the full military temperature range of -55°C to 125°C.

The D package is available taped and reeled. Add the suffix R to the device type (e.g., TL071CDR). The PW package is only available left-ended taped and reeled (e.g., TL072CPWLE).

Features

- Low Power Consumption
- Wide Common-Mode and Differential Voltage Ranges
- Low Input Bias and Offset Currents
- Output Short-Circuit Protection
- Low Total Harmonic Distortion
- 0.003% Typ
- Low Noise
- $V_n = 18 \text{ nV} / \sqrt[4]{\text{Hz}} \text{Typ at } f = 1 \text{ kHz}$
- High Input Impedance...JFET Input Stage
- Internal Frequency Compensation
- Latch-Up-Free Operation
- High Slew Rate...13 V/us Typ
- Common-Mode Input Voltage Range Includes V_{CC+}

To view the following documents, <u>Acrobat Reader 3.x</u> is required. To download a document to your hard drive, right-click on the link and choose 'Save'.

Datasheets

Full datasheet in Acrobat PDF: slos080d.pdf (281 KB)
Full datasheet in Zipped PostScript: slos080d.psz (251 KB)

Pricing/Samples/Availability

Orderable Device	<u>Package</u>	Pins	<u>Temp</u>	Status	Price/unit USD (100-999)	Pack Qty	DSCC Number	Availability / Samples
ЛМ38510/11906BCA	Ĩ	14	M	ACTIVE	31.73	1		Check stock or order
TL074CD	D	14		ACTIVE	0.60	50		Check stock or order
TL074CDBR	<u>DB</u>	14		ACTIVE				Check stock or order
TL074CDR	D	14		ACTIVE	0.53	2500		Check stock or order
TL074CN	N	14		ACTIVE	0.60	25		Check stock or order
TL074CNS	<u>NS</u>	14		ACTIVE				Check stock or order
TL074CNSR	<u>NS</u>	14		ACTIVE	0.59	2000		Check stock or order
TL074CPWLE	<u>PW</u>	14		OBSOLETE				
TL074CPWR	PW	14		ACTIVE	0.50	2000		Check stock or order
TL074ID	D	14		ACTIVE	0.80	50		Check stock or order
TL074IDR	D	14		ACTIVE	0.70	2500		Check stock or order
TL074IJ	Ī	14		OBSOLETE				
TL074IN	N	14		ACTIVE	0.80	25		Check stock or order
TL074MFKB	FK	20	М	ACTIVE	15.11	1	81023062A	Check stock or order
TL074MJ	Ţ	14	М	ACTIVE	4.38	1		Check stock or order
TL074MJB	ī	14	М	ACTIVE	6.41	1	8102306CA	Check stock or order
TL074MWB	<u>w</u>	14	M	ACTIVE	11.69	1	8102306DA	Check stock or order

Application Reports

View Application Reports for Operational Amplifiers

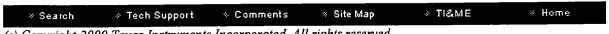
ANALOG APPLICATIONS JOURNAL (SLYT012A, 781 KB)

- ANALOG APPLICATIONS JOURNAL (SLYT010)
- ANALOG APPLICATIONS JOURNAL (SLYT010A)
- ANALOG APPLICATIONS JOURNAL FEBRUARY 2000 (SLYT012, 781 KB)
- ANALYSIS OF THE SALLEN-KEY ARCHITECTURE (SLOA024A)
- ELECTROSTATIC DISCHARGE APPLICATION NOTE (SSYA008)
- SIGNAL CONDITIONING PIEZOELECTRIC SENSORS (SLOA033)
- SIGNAL CONDITIONING WHEATSTONE RESISTIVE BRIDGE SENSORS (SLOA034)
- STABILITY ANALYSIS OF VOLTAGE-FEEDBACK OP AMPS, INCLUDING COMPENSATION TECHNIQUE (SLOA020)
- THERMAL CHARACTERISTICS OF LINEAR AND LOGIC PACKAGES USING JEDEC PCB DESIGNS (SZZA017A)

User Manuals

- UNIVERSAL OP AMP EVALUATION MODULE SELECTION GUIDE (SLOU060, 10 KB)
- UNIVERSAL OPERATIONAL AMPLIFIER EVM (SLVU006A, 387 KB)
- UNIVERSAL OPERATIONAL AMPLIFIER SINGLE, DUAL, QUAD (MSOP/TSSOP) (SLOU055, 1196 KB)
- UNIVERSAL OPERATIONAL AMPLIFIER SINGLE, DUAL, QUAD (PDIP) (SLOU062, 1211 KB)
- UNIVERSAL OPERATIONAL AMPLIFIER SINGLE, DUAL, QUAD (SOIC) EVALUATION MODULE WITH (SLOU061, 1160 KB)

Table Data Updated on: 3/19/2000



(c) Copyright 2000 Texas Instruments Incorporated. All rights reserved.

Trademarks, Important Notice!, Privacy Policy